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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/711,696	09/30/2004	Philip L. Campbell	FIS920040112US1	5695
32074	7590	12/20/2006	EXAMINER	
INTERNATIONAL BUSINESS MACHINES CORPORATION			NGUYEN, CHUONG P	
DEPT. 18G			ART UNIT	PAPER NUMBER
BLDG. 300-482			3663	
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HOPEWELL JUNCTION, NY 12533				
SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE		DELIVERY MODE	
3 MONTHS	12/20/2006		PAPER	

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)
	10/711,696	CAMPBELL ET AL.
	Examiner	Art Unit
	Chuong Nguyen	3663

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 06 October 2006.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1-11 and 13-20 is/are pending in the application.
 4a) Of the above claim(s) 18-20 is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-11 and 13-17 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152..

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Applicants' 10/06/2006 Amendment, which directly amended claims 1, 5, 9; cancelled claim 12; and traversed the rejection of the claims of the 07/18/2006 Office Action are acknowledged.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 5 recites the limitation of "said antenna" in line 3 of the claim. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4, 6-11, 13-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Gilbert et al in view of Houskamp (4,341,985).

Regarding claim 1, Gilbert et al disclose a system for controlling a set of material carriers in real time under control of a master controller comprising: a set of at least two material carriers (vehicle 10 in Fig 1 & 7; col 6, lines 6-8) containing a data processing unit; at least one master

controller (system controller 20 in Fig 1) capable of commanding the carriers to transport loads; a set of path marking references disposed along at least one path traversed by said material carriers (i.e. location markers) (col 8, lines 45-61); in which at least one of the master controller and the carriers contains a data processing unit for operating a real time closed loop interrupt driven position monitoring system that senses the passage of a carrier at a location (Fig 1).

However, Gilbert et al lack the carriers containing means for traveling in both a first direction along the path and along a second direction opposite the first direction, thereby permitting bi-directional travel. Houskamp teaches in the same field of endeavor a proportional speed control arrangement in which the motor means interface with acceleration switch means that enable the vehicle to change direction hence permitting bi-directional travel (col 2, lines 5-53; col 5, lines 25-40). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include the speed control arrangement with bi-directional travel ability as taught by Houskamp in the system of Gilbert et al in order for the carriers to operate more flexible in the congested area by allowing bi-directional travel.

Regarding claim 2, Gilbert et al disclose a carrier senses the locations of path marking references that it passes and transmits to a controller data pertaining to its passage past such path marking references (col 8, lines 45-61; col 9, lines 43-47, lines 55-60).

Regarding claim 3, Gilbert et al disclose the path marking references are related to a coordinate system fixed in space (i.e. bar code) (col 9, lines 6-11).

Regarding claim 4, Gilbert et al disclose the carrier senses its location by reading markers that are part of an absolute encoder fixed in space (col 9, lines 6-11).

Regarding claims 6, 7, and 14-16, both Gilbert et al and Houskamp lack the carrier broadcasting its own location and receiving the location of the nearby carriers for predicting and avoiding collision. However, Gilbert et al disclose the sensors that can be used for collision avoidance (col 13-14). It would have been an obvious matter of design choice to use the collision avoidance sensing device as taught by Gilbert et al since applicant has not disclosed that broadcasting the carrier own location and receiving the location of the nearby carriers for predicting and avoiding collision solved any stated problem. It appears that the invention would perform equally well with the collision avoidance sensing device.

Regarding claim 8, Gilbert et al disclose the master controller communicates with a set of zone controllers (i.e. cell 210, 212, ..., 224) (Fig 2; col 4, lines 54-65), each of which controls a set of carriers within a corresponding zone of said system, through separate addresses for each zone (i.e. AP 1, AP 2, ..., AP8) (Fig 2).

Regarding claim 9, Gilbert et al disclose the controlled location on a path is controlled by a token-passing system (i.e. vehicle identification address) in which a carrier having a token is able to travel through the congested location and carriers not having the token are prevented from entering the controlled location (col 8, lines 3-15; col 11, lines 35-57).

Regarding claim 10, both Gilbert et al and Houskamp lack the token is implemented through semaphore signaling. However, Gilbert et al disclose the token is implemented through wireless Ethernet LAN system (col 8, lines 3-15; col 11, lines 35-57). Also, applicant states that the token could be implemented by any communication via optical, mechanical, Ethernet, etc... ([0038], lines 10-13), it would have been an obvious matter of design choice to implement the token via Ethernet as taught by Gilbert et al since applicant has not disclosed that implementing

the token via semaphore signaling solves any stated problem. It appears that the invention would perform equally well with implementing the token with Ethernet system.

Regarding claim 11, Gilbert et al disclose the locations of the path marking references are referenced to an absolute coordinate system, whereby the carriers are capable to travel to a new location in said coordinate system upon command without a setup procedure to enter data in said carriers (col 9, lines 6-11).

Regarding claim 13, Gilbert et al disclose the zone further comprises at least one antenna connected to a zone controller (Fig 2).

Regarding claim 17, both Gilbert et al and Houskamp lack the attenuator. However, it is well known in the wireless communication art that the attenuator is used for reducing / attenuating signal power. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include the attenuator in the system of Gilbert et al since it is well known in the art.

6. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gilbert et al as modified by Houskamp as applied to claim 1 above, and further in view of Judd (6,690,328).

Regarding claim 5, Gilbert et al as modified by Houskamp lack the coaxial cable having RF leakage along its length sufficient to transmit to the antenna. Judd teaches in the same field of endeavor a RF coaxial cable (Fig 7; col 4, lines 60-63; col 5, lines 16-20). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include a RF coaxial cable as taught by Judd in the system of Gilbert et al as modified by Houskamp for providing better communication between the carriers and the controllers.

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7. While patent drawings are not drawn to scale, relationships clearly shown in the drawings of a reference patent cannot be disregarded in determining the patentability of claims. See In re Mraz, 59 CCPA 866, 455 F.2d 1069, 173 USPQ 25 (1972).

8. The "adapted to" or "adapted for" clauses (e.g. claims 1, 11, 17); and "whereby" clauses (e.g. claims 11 and 13) are essentially method limitations or statements or intended or desired use. Thus, these claims as well as other statements of intended use do not serve to patentably distinguish the claimed structure over that of the reference. See In re Pearson, 181 USPQ 641; In re Yanush, 177 USPQ 705; In re Finsterwalder, 168 USPQ 530; In re Casey, 512 USPQ 235; In re Otto, 136 USPQ 458; Ex parte Masham, 2 USPQ 2nd 1647.

See MPEP § 2114 which states:

A claim containing a "recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from the prior art apparatus" if the prior art apparatus teaches all the structural limitations of the claim. Ex parte Masham, 2 USPQ 2nd 1647

Claims directed to apparatus must be distinguished from the prior art in terms of structure rather than functions. In re Danly, 120 USPQ 528, 531.

Apparatus claims cover what a device is not what a device does. Hewlett-Packard Co. v. Bausch & Lomb Inc., 15 USPQ2d 1525, 1528.

As set forth in MPEP § 2115, a recitation in a claim to the material or article worked upon does not serve to limit an apparatus claim.

Response to Arguments

9. Applicant's arguments with respect to claims 1-11, 13-17 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

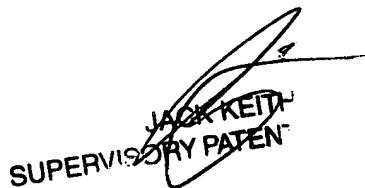
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chuong Nguyen whose telephone number is 571-272-3445. The examiner can normally be reached on 8:00 - 5:00 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Keith can be reached on 571-272-6878. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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